

Section 8 Conceptual Corridors

8.1 Greenway Corridor Planning

A frequently asked question “what are greenways?” stems from a misunderstanding that all greenways are supposed to be green and natural. While most are green and natural, the character of greenways *do* change within a variety of changing cultural contexts. For example, greenways in cities, where 90% of the land cover is impervious, may be limited to median strips, boulevard trees, and foundation plantings, while greenways in wilderness areas may be miles wide and hundreds of miles long. A plaza, or piazza, with hardscape paving interlaced with trees, or a waterfront, can be examples of civic greenways. Boston’s Post Office Plaza and Williamsburg’s Duke of Gloucester are two such examples; The San Antonio Riverwalk and the Virginia Beach Boardwalk are others.

While the character of the contextual greenway changes, the overriding principle as a linear open space remains unchanged. A pocket garden, plaza, civic green, park, and nature preserve represent different scales of open spaces. If they are connected by a series of green linear corridors, they constitute components of a greenway. One such example is Olmsted’s Emerald Necklace in Boston. Greenways are recognized by a prominence of green within a linear corridor; the amount of green depends on the local context. Several types of greenways include vehicular, cultural, recreational, aquatic, and environmental.

8.2 Vehicular Greenways

Probably the most misunderstood greenway is the vehicular greenway. Perhaps the most famous vehicular greenway is the Blue Ridge Parkway. It weaves its way along the Blue Ridge Mountains stretching from Front Royal Virginia through western North Carolina to the Kentucky border. Brilliantly conceived in the 1930’s by landscape architect Stanley Abbott, it demonstrates in classic natural eloquence the delightful experience afforded recreational driving. Little understood until recently, recreational driving is enjoyed by 60% of Virginians, whose love affair with the automobile makes it an extremely popular activity. Because of this, many communities find themselves faced with increased pressure to enhance the physical and visual quality of roadsides and shoulder landscapes. Scenic viewsheds, gateways, billboard restrictions, sign ordinances, wildflower meadows, perennial gardens, tree canopies over the road, and attention to architectural edge attenuation, collectively enhance the driving experience. Local residents also desire them.

Americans appreciate the importance of getting from points A to B, but they are also aware the driving experience could be more pleasurable if vehicular greenway principles are employed. Opportunities to create sequential experiences as motorists transition between origin and destination makes all the difference both in how people perceive their community and what values they communicate to visitors. An anonymous quote sums it up perfectly, “his purpose was not just to get there, but to enjoy the trip.” Greenways along our roads, highways, and interstates provide a traffic calming effect on drivers that translates into peaceful and enjoyable driving experiences. Since most roads pass through multiple jurisdictions, this creates an opportunity for regional cooperation to occur as origin and destination points are planned as continuous, seamless, harmonious travel corridors.

As roadways become more congested, the opportunity for greenway buffers to mitigate air and sound pollution is of immeasurable value to jurisdictions faced with air quality regulations linked to federal funding. When highways and interstates are widened, vegetative buffers must also be increased in order to help absorb carbon monoxide and process it into safe carbon dioxide. This environmental benefit provides the best justification for greenway planning along our roads, if the aesthetic benefit of green buffers was not enough. Examples of vehicular greenways in our area include:

The Colonial Parkway (NPS). This parkway, part of the National Historical Park, is considered one of America's best example of parkway design. The streamlined section enables the road to lie gently on the landscape without causing major landform disturbances. The articulated edges of trees provide variations in the distance between trees and road. This undulating landscape mimics a breathing organism as the edges come in, then out, then in again. Frank Lloyd Wright might consider parkways organic by nature because of their physical responses to the landscape. In the spring, redbud and dogwood trees create flowering cavalcades that draw visitors from across the state and beyond. While urban corridors remain handicapped in their aesthetic capability, there remain vestiges of motorized greenways throughout our community, such as the Colonial Parkway, with the potential to captivate our senses. A multiuse trail corridor parallel to the parkway is currently being studied to determine the viability of such a recommendation. In many instances, a corridor may be shared by a variety of uses, in this example, as both vehicular and recreational greenways.

Interstate 64. Except for a few segments of I-64, most of the road enjoys wide vegetative buffers that successfully shield homes and businesses. While efforts are currently underway to widen this highway from two lanes to four, the current right-of-way width should not be mistaken as an inflexible barrier. Greenway buffers will be needed to mitigate increased pollution and maintain scenic qualities enjoyed at present free of sound walls. Wider roads should not diminish the greenway character of wide vegetative buffers currently enjoyed by millions of passing motorists on their way to their favorite tourist destination, of which we are well endowed.

Route 199. All things being equal, Route 199 has the potential to become a vehicular greenway par excellence'. With both ends anchored on I-64, this inner-loop 'beltway' was designed to provide access into Williamsburg as well as visual relief from the commercial untidiness along all major roadways entering Williamsburg, except Route 132. There is a cultural greenway segment between Brookwood Drive and John Tyler Highway that should be flanked on both sides by a buffered greenway. This cultural greenway segment should employ sidewalks on both sides of the road and a plethora of landscape enhancements including flowering trees and shrubs, wildflower meadows, perennial gardens, canopy trees, and streetscape medians. The goal is not to completely screen but rather to enhance filtered views into surrounding commercial areas. The buffered roadway on both ends of 199 should be landscaped in such a way as to introduce native trees and plantings as they occurred prior to road development, with dogwoods, redbuds, sourwoods, and other flowering trees throughout, and canopy trees planted as close to the roadway as permissible. The roadway edges should articulate with wildflower meadows, wetlands, tall grass meadows, and agricultural fields to provide a dynamic array of variable landscape scenes that are more natural than stylized in appearance. The edge of the right-of-way should introduce multiuse pedestrian and bike trails to create non-motorized connections within the community. Roadway expansions between Mounts Bay Road and Brookwood Drive should

have pedestrian/bikeway sections added to the bridges to help connect our community over creeks and wetlands, as is recommended in the Regional Bikeway Plan.

John Tyler Highway. Designated a Virginia Scenic Byway, historic Route 5 has been considered one of America's earliest highways. Originally an Indian trading trail, it later became a section of the Great Road leading from Green Spring to Williamsburg. Functioning as a major arterial for automobile circulation, development activity has intensified near Route 199 and should employ cultural greenway characteristics to include multiuse trails. While most of the corridor transitions into suburban and rural areas the farther west it travels, development impacts upon the Five Forks area suggest a study be designated in order to improve corridor aesthetics. As utility lines are buried, opportunities for trails within the road right-of-way or utility easements are possible without need for additional tree clearing. Areas west of Greensprings Road show great promise as an enjoyable greenway with scenic buffers, especially after the Capital-to-Capital Bikeway is completed. Scenic buffers 150-200' wide are in keeping with the Community Character Corridor designation.

Jamestown Road. This historic road is very similar in characteristics to John Tyler Highway. It transitions from a cultural greenway to suburban and agricultural areas, functioning as a major gateway entrance into Jamestown Island, 1607, the first permanent English settlement in the New World. Both Jamestown Road and John Tyler Highway have been selected as priority areas for expenditure of open space land acquisition funds to protect the historic character and aesthetic beauty of the Williamsburg area. Providing trail access down Jamestown Road is problematic due to terrain, wetlands and preexisting development. An opportunity to create a greenway and trail behind Druid Hills through portions of the Yancey property would circumvent most of these obstacles, thereby connecting the Williamsburg Crossing Shopping Center to nearby residential areas en route to Lake Powell and beyond towards Jamestown.

Greensprings Road. This road exhibits textbook greenway characteristics, having changed little since it was first used by horses and carriages in about 1640. Current highway standards would obliterate the character of this road should it come under pressure to widen as a result of traffic volume and safety concerns. Any proposal for a trail along this road should be established far enough away or set back from the road so as not to endanger the health and vigor of canopy trees. Greensprings Road is a Virginia Scenic Byway and considered the oldest road in America. Preservation efforts to protect this corridor should dictate all other development considerations for the surrounding area. Similar attention is due Airport Road in York County.

Community Character Corridors. There are many roads in James City County with tremendous greenway potential. Formerly classified as greenbelts, these corridors exemplify the best our community has to offer in defining the aesthetic and historic character of our community. Substantial efforts must be taken to preserve, protect, and enhance their aesthetic value and roadside appeal for our community, as outlined in the Comprehensive Plan. In areas where significant commercial activity has occurred, cultural greenway guidelines should be followed.

8.3 Cultural Greenways

Cultural greenways are corridors influenced to a high degree by human use and development. Economic development in most American communities occurs along arterial roads and intersections. Williamsburg is no different. Perhaps the single greatest lament for tourists

coming into Williamsburg is the perceived loss of its cultural beauty and uniqueness as a historic community. Cultural greenways provide an opportunity to elevate the green quality of streetscapes as they weave through suburban, urban, and commercial areas. Route 60 has become an “anywhere USA” commercial corridor with strip malls, fast food restaurants, gas stations, and car dealerships. Despite narrow green strips, a consistent greenway planting theme can be superimposed over blocks and multiple blocks to create harmonious landscape enhancements of boulevard trees, hedging, abundant flower beds, sidewalks with pedestrian crossovers, shared curb cuts, and parking lots. An example of this type of planning is found at the Outlet Mall near Ewell Station. The streetscape should employ “Main Street USA” archetypes exemplifying an attractive curb appeal. Low profile pedestal signs are repetitive and unnecessary if there are already two signs mounted on the building. Utility lines should be underground. There are many well-documented direct correlations between this type of streetscaping and heightened commercial prosperity due to increased visitation. Economic stakeholders in the region have a proprietary interest to protect the character and ambiance of this historic community. Providing a pedestrian safe and friendly atmosphere is an over-arching goal for cultural greenways, and an absolute necessity for tourist destinations like the greater Williamsburg area.

8.4 Recreational Greenways

The most readily understood greenway concept incorporates recreational trails within a network of natural open spaces, so much so, that citizens often translate greenways to mean recreational trails. Advocates for walking and biking trails have requested support for these facilities since the 1980 Parks and Recreation Comprehensive Master Plan, and greenways were first introduced in the 1991 County Comprehensive Plan. Most recently, local and national attention on outdoor recreation reveals walking is the number one recreational activity in America, as high as 68%, and highest among senior populations. While environmental protection is the heart and soul of the Greenway Master Plan, the opportunity for trail development responds to the more enjoyable aspect of greenways: providing trail access to experience the great outdoors! The Division of Parks and Recreation has identified a shortage of 100-miles of walking trails for our County, based upon Virginia Outdoor Plan population standards of 2-miles per 1000 residents. Bike trails are based upon 3-miles per 1000 (1.5-miles for bikeways, 1.5-miles for multiuse trails).

There are many types of recreational greenway trails. Depending upon the specificity of the intended use, each use will dictate its own unique trail criteria, design, implementation, and management. Passive recreational trail activities include walking, hiking, bird watching, painting, photography, and nature watching. Active recreational trail activities include running, jogging, biking, mountain biking, skateboarding, rollerblading, horseback riding, motorcross, and cross-country skiing. Water trails, or blueways, will be discussed in the next section. Some conflicts between active and passive recreational trail uses may result, necessitating the development of separate trail facilities to maximize safety and the user’s trail experience.

Parks are labeled as either active or passive parks. However, most parks offer a variety of active and passive recreation amenities on the same site (described as multi-objective facilities in the implementation section of the Greenway Master Plan). On small park sites, it becomes a programmatic challenge to separate these two uses as much as possible with transitional open spaces for the benefit and enjoyment of both users. On large park sites, this problem is diminished. When connections can be established between parks and neighborhoods by

greenway corridors, these natural areas function as extensions of the recreation program for the park. They maximize the recreational potential of both programs without creating a need for more parking and facility improvements.

The Regional Bikeway Master Plan served as one of the key elements in development of the Greenway Master Plan. Bikeways are designated as multi-use path, shoulder bike lanes, and shared roadway with signage. Shoulder bikeways have some bearing on the Greenway Plan because pedestrians sometimes use them in the absence of other safe transportation systems. Shared roadway bikeways are typically designated in rural areas that place bikers in the same travel lane as vehicular traffic while pedestrians walk on the gravel shoulder. Multi-use paths are separated from the road and are used by pedestrians and bicyclists for recreation and alternative transportation. Multi-use paths (or paved multiuse trails) provide the best means of incorporating bikeway and greenway master plans by sharing capital resources. The Inventory Map of Park and Recreation Facilities superimposed significant sites, parks, schools, bikeways, and greenways in order to determine where overlapped systems provide opportunities to share resources. Citizen comments during focus group meetings reiterated time and again the need to provide safe trails, especially multiuse trails that afford recreational benefits to a broad cross-spectrum of citizens. In much the same way, the Sidewalk Master Plan should be revised to reflect this principle of shared facility use and funding. In doing so, proposed 4' sidewalks can be widened to 8' or more, depending on user data and standards, to accommodate greater facility usage.

The following trail corridors were developed in conjunction with citizen input during four focus group meetings. These routes have not been designed, nor have feasibility studies been performed. This Greenway Master Plan functions as the foundation plan upon which future trail corridor planning will be governed. Each corridor should be considered conceptual, with planning direction determined in the Action Plan.

Five types of recreational greenway trails include primary trails, secondary spur trails, neighborhood connector trails, nodes, and loops. Primary trails create transportation spine routes; secondary spurs connect to areas of public interest; neighborhood trails connect to neighborhoods; and nodes provide areas for public access. Accessibility, continuity, and connectivity are important design factors for these trail elements.

8.4.a Primary Trails

In James City County, primary trails typically follow existing linear features such as streams, utility corridors, and roadways. These linear trail corridors function like primary roads to serve as main transportation spines by which all other secondary and neighborhood trail spurs are connected. By mimicking vehicular transportation systems, alternative transportation means can be provided that link existing destination points within the same right-of-way, or adjacent to it. Funding is provided through the Greenway CIP account, supplemented by various federal and state transportation and recreational grants.

The Regional Greenway. Also called the Peninsula Greenway, this corridor is proposed within the existing utility easement shared by Virginia Power, Colonial Gas, and Newport News Water Works. It traverses the length of the County and serves as the structural spine (main axis) for all greenway development. Station points along this regional corridor will permit users to access

numerous sites with significant natural, historic, and scenic value through secondary trail spurs. This corridor will be an integral link within a regional greenway network providing hiking and biking opportunities through the entire Peninsula. The Peninsula Greenway should be integrated with the East Coast Greenway in Richmond, currently being proposed from Maine to Florida, which would give residents and visitors of the Commonwealth more opportunities to visit Williamsburg. This corridor has been integrated into the Regional Bikeway Plan as a multiuse greenway corridor. A portion of the corridor that passes through the recently approved US Homes development was routed around this gated community while maintaining endpoint connections to the utility corridor.

The Cross County Greenway. This is a primary greenway corridor connecting Jamestown Island with York River State Park. This cross-axial corridor links the Powhatan Creek Greenway and the York River Greenway at the James City County District Park Sports Complex. Hiking and biking opportunities will provide residents and tourists numerous trail connections between parks, neighborhoods, schools, historic sites, and natural areas. A regional partnership with York County will be necessary as segments north of Mooretown Road are within its jurisdiction, including Interstate 64. This conceptual route through Ford's Colony, a gated community, prevents access unless current conditions change. Two alternative routes are possible using the News Road Trail as a means to connect to other trails surrounding Ford's Colony; however, the opportunity to create the longest all-natural greenway corridor through the center of the County to the District Park on Longhill Road was envisioned as a hallmark corridor exceeding all other trail proposals.

The Powhatan Creek Greenway. This natural corridor parallels the Powhatan Creek, recognized as the most environmentally significant natural resource on the Peninsula. This corridor creates the best and longest linear opportunity for a true greenway within the core of the County's RPA. Residents requested during the Comprehensive Plan this sensitive environmental area be protected from current development pressures. Acquisition of open space segments along the Powhatan Creek has already occurred. This plan promotes protection of the watershed and includes provisions for local access at station points to increase public interest in environmental conservation, open space preservation projects, the development of community and neighborhood trail connections, and the promotion of alternative means of transportation through the County. Significant natural and historical features can be woven into an interpretive program used by schools as an educational tool to learn more about our natural and cultural environment. The ultimate goal is to enhance the quality of the environment in which we work and live. The first phase of this corridor is the Greensprings Greenway spur located behind Jamestown High School.

The Williamsburg Inner and Outer Loops. Trails paralleling existing roadways are easy for residents to understand where they go and are generally safer due to their high visibility. This designation refers to two multiuse trail loops paralleling primary roadway corridors with the purpose of mimicking vehicular circulation systems.

- The Inner Loop constitutes Route 199 and trails should be introduced along the edge of the right-of-way where possible. Similar roadways across Virginia, including the Fairfax Parkway, incorporated multiuse trails into the plans and Route 199 should be no exception. Two future roadway-widening projects between Route 60 and Brookwood Drive should have pedestrian facilities included in the plan on the southern side. This

project will necessitate regional cooperation between York County, the City of Williamsburg, and the National Park Service.

- The Outer Loop begins on Centerville Road in Lightfoot (where it ties into the Sports Complex) and travels south to Route 5 and then along Greensprings Road. As it passes through the Green Spring National Park site, a multiuse connection should be maintained even if the road is deleted as proposed in the general management plan for the park. The segment from the District Park at the Longhill Road intersection to the Colonial Parkway was designated the Williamsburg Historic Necklace and makes direct connections between Jamestown Island, Green Spring and the District Park, site of America's first free Black settlement (1802).

The Colonial Parkway (NPS). As previously mentioned in the vehicular greenway section, the Colonial Parkway has been recognized as an excellent facility to provide multiuse recreational trail access. It is very popular for bicyclists, runners and walkers because of the dramatic scenic vistas and protected natural area buffers along this 25-mile route. Grooves and joints in the pavement create safety concerns for cyclists. This corridor has numerous regional trail plans overlaid on it, including the TransAmerica Bike Route US 76, the Capital to Capital Bikeway, the Williamsburg Historic Necklace, the Civil War Trail, and potentially the East Coast Greenway. Providing a multiuse trail prior to Jamestown 2007 would satisfy some transportation objectives during this premiere national historical event.

The Capital-to-Capital Bikeway. This 55-mile multiuse trail is designed to link the three Virginia Capitals of Richmond, Jamestown, and Williamsburg. The route leaves Richmond and travels through Charles City and James City County along historic Route 5, John Tyler Highway, until it meets Greensprings Road. An undefined corridor along Greensprings Road will connect to Jamestown Road, then to the Colonial Parkway where access to Jamestown and Williamsburg result. Currently in the planning phase, portions could be built before 2007. An intermodal transfer station is currently being planned behind Jamestown High School as a joint venture between James City County and VDOT to gain access to VDOT's interpretive site at the intersection of Greensprings Road and Route 5.

8.4.b Secondary Spur Trails

Secondary spur trails provide access to a finer grain of pedestrian and bicycle travel to areas of community importance like parks, historical sites, environmental areas, schools, shopping centers, neighborhoods, employment, and recreation areas. These trail corridors are community favorites because they allow citizens to visit nearby sites without having to arrive by car. In some instances, these trails provide faster round-trip travel by passing through blocks rather than around them. Whereas primary trails serve as main arterials through the community, secondary trails create connections to sites of local significance within localized areas.

The Greensprings Greenway. This corridor is one of many local greenway trail spurs that branch off the Powhatan Creek Greenway. This trail spur connects to Jamestown High School and represents the County's pilot greenway project. Trail clearing was begun in 1997, boardwalk bridges were built in 1998, and trail surface improvements were completed in 2001. In 2000, the Virginia Recreation and Parks Society selected it as the best new recreational facility in Virginia. The site is adjacent to Mainland Farm (1616), considered the oldest continuously cultivated farm in British North America. It boasts two beaver ponds, three beaver dams, seven osprey nests,

over 175 documented species of birds, Bald Eagle habitat, other wildlife, and numerous historical sites. It was designed as an outdoor education classroom with over 50 interpretive sites. Trail networks provide access between Jamestown Island (NPS) and Green Spring (NPS) beginning at the Powhatan Creek Canoe Access. A segment of the Capital-to-Capital bikeway will also pass through the site.

School Spurs. There are numerous school/park opportunities to create outdoor education classrooms, as mentioned in the Education Section of the plan. Primary corridors through the County were woven in such a manner as to provide semi-direct access to schools. These trail spur connections should be partnered with the W/JC School Division to enhance educational opportunities for all schools and create pedestrian friendly corridors where possible. These corridors should be celebrated during “National-Walk-to-School Day” in October. The Greensprings Greenway behind Jamestown High School is one such spur; another is planned behind Lafayette High School at the Sports Complex.

Clara Byrd Baker Spur. This spur off the Powhatan Creek Greenway branches halfway between Jamestown Road and John Tyler Highway to connect with Clara Byrd Baker Elementary School. Extension opportunities to connect Mid County Park through a trail along Ironbound Road are possible along portions of the John Tyler Trail and/or Ironbound Road leading to Five Forks.

James Blair Spur. This neighborhood spur trail begins at the James City/Williamsburg Community Center (JC/WCC) and connects to Kiwanis Park, James Blair Middle School, Plumeri Field, and Dillard Complex. Cooperative efforts between the City and County on school/park initiatives make a strong recommendation for this area to serve as a greenway node and a high priority in the Action Plan. While sidewalks and multiuse trails exist around the perimeter of this large block, a natural greenway corridor could be woven between these sites. A connection to the College Creek Trail on the other side of Ironbound Road is possible through undeveloped Resource Protection Areas (RPA's) on the Torsion property.

Mid County Spur. This spur off the Powhatan Creek uses portions of the Hiden property easement to access Monticello Avenue where it connects to Mid County Park using on-road sidewalks and multiuse trails. A proposed 2/3-mile long multiuse trail around Mid County Park will create a destination loop and node for other trail connections, including the Monticello Avenue multiuse trail that connects to the New Towne spur trail and the James City/Williamsburg Community Center (JC/WCC).

New Towne Spur. An excellent opportunity to connect Mid County Park to the JC/W Community Center via this spur is possible through New Towne and Eastern State property, where informal running trails currently exist. This spur can move people through this large parcel bounded on all sides by major roads by an internal trail network along the JSCA sewer easement, bypassing vehicular conflicts that occur along those roadways. A New Towne trail spur will connect the Monticello trail to the JC/WCC, where future New Towne residents can access this recreation facility without getting in a car.

Longhill Road Trail. Multiuse trails on both sides of Longhill Road adjacent to New Towne have been incorporated into the Greenway Master Plan. This corridor provides an on-road trail connection between the Monticello Trail, various residential neighborhoods, and the JC/WCC.

News Road Trail. This critical link provides access to three primary trails: the Williamsburg Inner Loop/Route 199, the Outer Loop/Centerville Road, and the Powhatan Creek Greenway.

John Tyler Trail. This multiuse trail along John Tyler Highway acts like a primary trail, but because it links other primary trails it is considered a spur trail. It parallels this primary road from Jamestown High School to Route 199 as a cultural greenway where it connects the Route 199 Inner Loop, the Centerville Road Outer Loop, and the Capital-to-Capital Bikeway. Considerable development activity along this road, specifically at Five Forks, created many roadside trail obstacles requiring technical studies to determine the viability of such a proposal. The name of this trail conjures thoughts of naming other trails within this community trail system after notable persons connected to our Colonial history, some of which may have been traveled by them over 225 years ago.

Monticello Trail. This special transportation corridor was created to take vehicular traffic off John Tyler Highway and preserve this historic roadway. Designed as a major connection to Route 199, this trail provides pedestrian opportunities between the City of Williamsburg and old John Tyler Highway. Portions of this trail currently exist along the New Towne segment and should be proposed in future roadway-widening projects expected between Ironbound Road and Compton Drive, where it provides access to the College Creek Greenway at Compton Drive.

College Creek Greenway. This multi-jurisdictional corridor was recommended through citizen input during focus group public meetings. The central portion of the trail requires regional cooperation as it passes through the City of Williamsburg and the College of William and Mary property. James City County endpoints begin at the JC/WCC via the James Blair Spur and terminate at the Colonial Parkway along the James River. This trail connects the Colonial Parkway at Route 199 to other City open spaces such as Papermill Creek, College Landing Park, College Creek Conservation Areas, and the Torsion property. As it passes through the Route 199 corridor, a study will be necessary to examine whether safe alternatives are possible to continue along the creek towards the James River.

Williamsburg Crossing Spur. This trail spur between John Tyler Highway and Jamestown Road Trails, located behind the Williamsburg Crossing Shopping Center, connects numerous neighborhoods to the shopping center along the Colonial Gas easement. A recommendation to enhance this connection is included in the proposed Prestonwood development.

8.4.c Neighborhood Connector Trails

Neighborhood connector trails serve as conduits between neighborhoods and primary, secondary and park loop trails. They may be short segments connecting to County trails or networks of internal neighborhood trails. While these trails are not approved for expenditure of Greenway CIP funds, some of these trails may be funded 50/50 using Park and Recreation grants if these trails are open to the public. The goal is to help citizens travel to different areas of the County safely and free of vehicular conflicts.

8.4.d Nodes

Nodes are expanded areas of open space that are not linear by nature. They are typically high activity areas central to a community or locality with transportation access to residential,

commercial, and/or recreational areas. They can serve as destination points and/or access points into other geographic areas of the County and serve as the hub for Loop Trails (described below). Parks make perfect nodes, capitalizing on existing parking, vehicular access, and geographic proximity to residential areas. Trail development in and around nodes should be recognized as a high priority in the Action Plan. Three major nodes in our community are Colonial Williamsburg, Jamestown Island, and Yorktown Battlefield.

District Park Sports Complex. In virtually all these greenway and trail plans, the District Park Sports Complex occurs repeatedly as a development factor for these trail systems. In some respects, the Sports Complex, known also as the Warhill Tract, is becoming James City County's "Central Park," both in proximity of its central location in the community and also by virtue of its wide array of interconnected active and passive recreational systems that converge on the site. As a result, the development of trails in and around the Sports Complex should be the second highest priority in the Action Plan, to include connections to the JC/WCC and the new District Park on Centerville Road via the Regional Greenway. A 3.5-mile multiuse nature trail and a 1-mile paved multiuse trail are included in the park master plan, as well as on-road and off-road connections to Lafayette High School.

District Park. Also known as the Hotwater/Cole Tract, this 676-acre open space park was initially designed as an active recreational park until passive activities were determined preferable for preserving numerous environmental and historical sites, including the first free Black community (1802). Limited active recreational programs such as tennis, basketball, and volleyball courts, and an environmental education center remain on site and can operate in conjunction as an historical interpretive site. The size of this park is capable of supporting numerous recreational trails of varying lengths, some several miles in length, including hiking and running, equestrian, mountain biking and others, with connections to other parks and trail systems proposed along Centerville Road and Longhill Road. It also serves as a terminus for the Williamsburg Historic Necklace.

James City/Williamsburg Community Center (JC/WCC). Easily accessible off Route 199, this award-winning community center has a family living room atmosphere with multiple on-site recreational programs. Its central location to the James City/Williamsburg region makes it available to a large local population. Pedestrian and bicycle access is provided by a multiuse trail parallel to the Longhill Connector Road and various perimeter sidewalks, with potential for an on-site loop trail. This site provides superlative connectivity to three primary trails, two secondary spur trails, and many neighborhood connector trails, making it the quintessential node.

Mid County Park. A proposed 2/3-mile long multiuse trail loop within the perimeter of the park has been partially constructed, providing another recreational activity to complement existing baseball, basketball, tennis, volleyball, picnic, and Kidsburg programs. The trail functions both as a destination site and as a link to residential areas, shopping centers, and other trail spurs. This node, adjacent to numerous residential areas, provides direct access to the Monticello Trail, creating a halfway point between Jamestown High School and the James City/Williamsburg Community Center. Other connections along the Monticello Trail create linkages between multiple park facilities and residential areas within the surrounding area.

The Greensprings Greenway. Once the parking lot is constructed behind Jamestown High School (in 2002), community access to numerous trails systems will make this an ideal node for

weekend trail recreation. Some overlapping regional trail systems planned within the Greensprings Road corridor that are accessible from this site include the Capital-To-Capital Bikeway, the TransAmerica Bike Route, the Williamsburg Historic Necklace, and a spur of the East Coast Greenway. Access to the Powhatan Creek Greenway, the Monticello Trail and the Williamsburg Outer Loop provide local connections to various other parks, neighborhoods and historical sites within this historically rich area. The Greensprings Greenway Trail is an award winning improved soft surface trail with four loops around environmentally protected wetlands.

York River State Park. Much like the District Park, this state park functions more like a destination site than a node, but due to numerous existing trail systems on their 2,505 acres, the park is a node for multiple on-site trail activities.

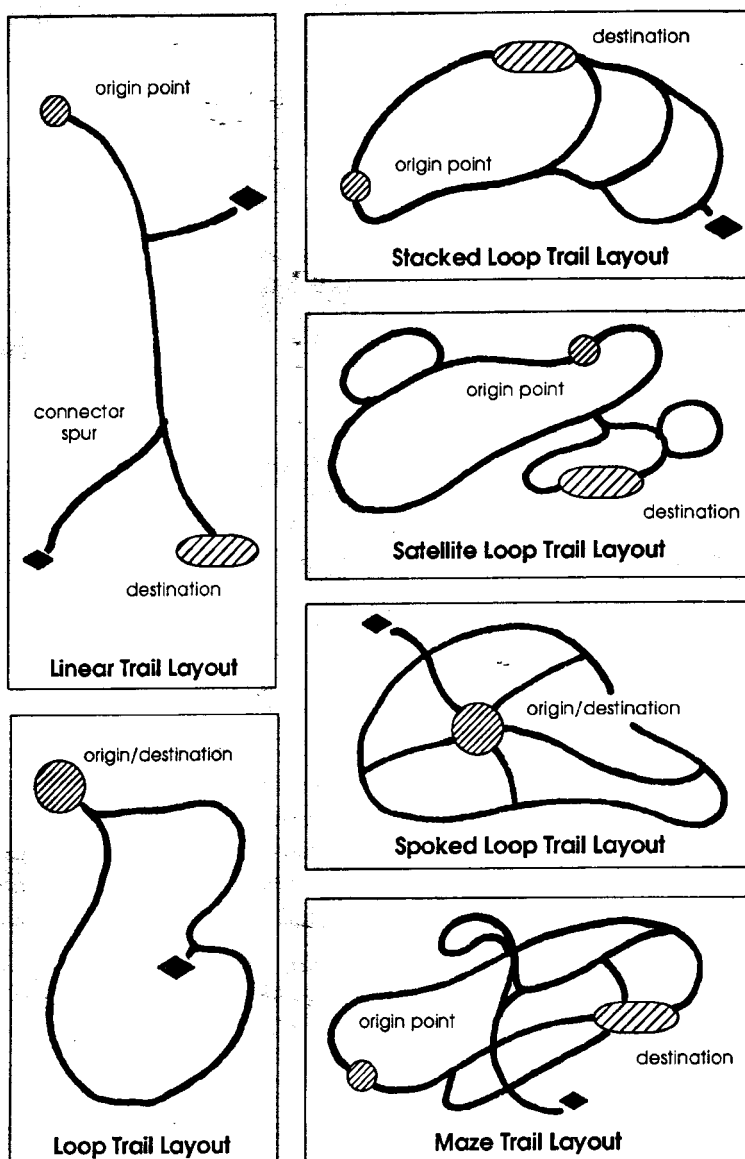
James River Community Center. This facility in the lower County was partnered with the James River Elementary School and boasts an award winning nature trail. This site provides access to the Regional Greenway, the Colonial Gas Pipeline, Carter's Grove and the Old Country Road, and is only a few miles geographically from Newport News Park.

Little Creek Reservoir Park and Upper County Park. These park sites have future potential to accommodate trail systems that connect to other off-site trails. As development occurs in the Stonehouse District, these sites have much to offer as nodes. Some citizens have suggested the possibility for a 38-mile looped trail system around Little Creek Reservoir.

8.4.e Loop Trails.

Loop trails are routinely requested as a design element when developing trail systems because of their diversity of use, accessibility, and connectivity. These loops allow citizens to enjoy a variety of trail segments of varying length, difficulty, and scenery to match their health and recreational potential. A well-designed trail plan will resemble spokes on a wheel, such that two spokes connected to a hub and a rim create a loop. Nodes serve as the hubs where trail loops originate. The Loop Map shows where loop trail opportunities can occur.

Diagram of looped trail systems.⁷²



8.5 Aquatic Greenways

These greenways are a combination of recreational greenways and environmental greenways, also known as blueways. With over 80% of Virginians participating in some form of water-related outdoor recreation every year,⁷³ small watercraft such as canoes and kayaks are gaining in popularity. Access to three major rivers and numerous tidal and non-tidal creeks provide more water access opportunities than are afforded most jurisdictions. However, there are very few public launch sites. Most notable are the Powhatan Creek Canoe Access and Brickyard Landing Boat Ramp sites. Other ramps and aquatic facilities are detailed in the Water Access Inventory Map that includes neighboring jurisdictions. Three main blueway corridors are located on the James, York, and Chickahominy Rivers. Smaller blueway opportunities are possible along tidal and non-tidal creeks described under *Environmental Greenways*. The recent acquisition of the

⁷² Greenways, Charles Flink and Robert Searns, sponsored by the Conservation Fund, 1993, p.196.

⁷³ Virginia Outdoors Plan, 1996, p. 77.

140-acre Chickahominy Riverfront Park will significantly advance blueway and watercraft opportunities in the region, including aquatic day trips to Jamestown Island via the James River. Strategies should be developed to increase public access to blueways throughout the County, as private development is incrementally restricting water access both visually and physically.

The James River Blueway. The James River was designated a state scenic river and state historic river. River-dependent recreational opportunities are gaining popularity upstream as far as Richmond, with potential to provide river running and paddle-in overnight camping in our County. The Department of Conservation and Recreation considers the James River an invaluable asset as a natural resource capable of supporting multiple blueway activities. A small boat access park site on the Powhatan Creek allows recreationalist's access to the James River and Jamestown Island at Sandy Bay and the Back River, a waterway navigated by colonists since 1607. The Chickahominy Riverfront Park, strategically located on the James River, may serve as a wayside and launch facility for numerous watercraft activities to occur in the region.

The York River Blueway. A fledgling blueway operation already active on the York River includes programs at York River State Park where a fee-based public launch is available.

The Chickahominy River Blueway. The Chickahominy River has been designated a state scenic river. Incredible blueway recreation opportunities are possible upstream for 30+ miles and downstream where the confluence reaches the James River. Access to both the James and Chickahominy Rivers is available at the Chickahominy Riverfront Park.

8.6 Environmental Greenways

Two goals of environmental greenways are to preserve open spaces and provide access to natural areas that permit trail construction without damaging the natural environment. Some of these corridors follow streams and rivers that are linear by nature. Nearly 41% of James City County's geographic area is covered by water and wetlands, areas currently protected by the Chesapeake Bay Act, constituting a valuable environmental resource future generations will enjoy. Preserving the land does not guarantee its protection. The quality of the resource needs to be protected from environmental degradation caused by off-site development impacts such as stormwater runoff, air and noise pollution, wildlife decline, and forest fragmentation due to losses in contiguous open spaces.

Protecting these contiguous open spaces is an essential component to preserving biodiversity. Since most species migrate, protecting migratory corridors along rivers and creeks creates invaluable "geneways" that allow the free movement of species between natural habitats. These "geneways" within contiguous forests and waterways are essential environmental components in greenway planning.

Many streams throughout the County afford excellent access as recreational trails and environmental education sites, provided wetlands and environmentally significant sites are protected. Although the master plan map does not detail trails along all stream corridors, it is recommended that all streams have a trail component. While many upland stream corridors are capable of supporting trails, they may be declining in health due to downstream channel erosion. As stream channels flatten out into wetlands downstream, they become nearly impossible to traverse. This environmental pattern is prevalent throughout the County, especially along our

three main rivers rendering them inaccessible to navigate on land unless expensive boardwalks are built. This is the reason why the James River Greenway, which was recommended in the Virginia Outdoor Plan, is becoming an upland trail overlaid on the Capital-to-Capital Bikeway, rather than a scenic shoreline trail. The following creeks represent the larger waterways in the County; however, there are numerous smaller creeks, such as Shellbank Creek, that may have some environmental significance and recreational benefit.

Powhatan Creek. See description above under primary trails. This is the most significant stream corridor in the County. Numerous open space preservation initiatives are currently underway. Recommendations in the Powhatan Creek Watershed Study should help guide planning efforts for environmental protection and recreational trails.

College Creek. See description above under secondary spur trails. The regional connectivity of this trail creates an exciting greenway opportunity to link numerous parks and conservation areas. The blueway potential is significant with access to Halfway Creek and the James River.

Gordon Creek. Access to the Chickahominy River by Gordon Creek could connect Jolly Pond and the District Park on Centerville Road through Colby Swamp or the County Landfill, currently closed for operations.

Yarmouth Creek. A similar watershed study, like the Powhatan Creek, is being prepared for this environmentally sensitive site. Access to the Chickahominy River by Yarmouth Creek could connect Cranston's Pond, the Peninsula Boy Scout Camp, Centerville Road, and the two District Parks by way of the Regional Greenway. Although roadways such as Route 60 and I-64 are hindrances to a cross-county connection, overland opportunities to connect Yarmouth Creek with Skimino Creek should be studied that include connections to six campgrounds, Girl Scout Camp Skimino, and the York River.

Diascund Creek. Twisting through mostly rural areas, it serves as the western jurisdictional boundary for James City and New Kent County. It connects the Chickahominy River and Diascund Creek Reservoir, managed by Newport News Waterworks.

Ware Creek. Similar to Diascund Creek, it forms the northwestern jurisdictional boundary for James City and New Kent County. It flows into the York River and was site for a proposed reservoir in the 1980's but denied approval based upon environmental concerns.

Taskinas Creek. This creek is a significant natural resource to the environmental program at York River State Park. Much of the tidal marshes along the creek have been protected as part of a 2,505-acre park. The environmental resource management program for the site is a model for the state park system.

Mill Creek. This waterway is adjacent to the Powhatan Creek, beginning at Lake Powell, and drains into the James River.

Skiffe's Creek and Wood Creek. These waterways are located in the southeastern portion of the County and constitute a shared boundary with Newport News and Fort Eustis. An upstream reservoir on Skiffe's Creek is owned and managed by Newport News Water Works, as are Little Creek Reservoir and Diascund Reservoir.